## **Abstract**

A method of disinfecting and stabilizing organic wastes where organic waste is intimately mixed with one or more mineral by-products to produce a mixture having a pH of less than about 9. The mixture is heated and dried to produce a stable, granular bio-mineral product that may be used for example, as a fertilizer, soil amendment or as a soil substitute. Also provided are stable, granular bio-mineral products formed by the methods of the present invention and fertilizers, soil amendments, and soil substitutes that include these stable, granular bio-mineral products. Further provided are systems for disinfecting and stabilizing organic waste, and systems for making a stable, granular bio-mineral product.